

# California HIV/AIDS Update



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## First 100,000 AIDS Cases -- California, Through April 1997

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The condition that would eventually become known as acquired immuno-deficiency syndrome (AIDS) was first recognized in California in 1981.<sup>1</sup> By June 1993, 50,000 cases of AIDS had been reported in California.<sup>2</sup> In April 1997, the 100,000th California case of AIDS was reported. This article presents selected epidemiologic characteristics of the first 100,000 cases, with comparisons of cases reported in earlier years with cases reported in more recent years.

### Methods

California local health department AIDS surveillance staff use a standard form to collect information on diagnosed AIDS cases from physicians, hospitals, and other sources. The local health departments transmit data on each case to the AIDS Case Registry Section (the Registry) of the California Department of Health Services. The Registry sends data for each case (excluding identifiers) to the CDC.

We analyzed demographic, risk factor, and AIDS-indicator disease data from California AIDS cases reported to the Registry through April 4, 1997. We compared characteristics of the first 25,000 and the fourth 25,000 consecutive AIDS cases reported in the State. The first 25,000 cases were diagnosed through mid-August 1989 and the fourth 25,000 cases were diagnosed between January 1994 and April 1997. Furthermore, we compared California cases reported in 1984-1986 with California cases reported in 1994-1996 using 24 geographic-racial-age-exposure categories.

We did not make adjustments for changes in the AIDS surveillance case definition, which the Centers for Disease Control and Prevention (CDC) has revised three times, most recently in January 1, 1993.<sup>3</sup>

## Results

Table 1 presents demographic and geographic characteristics for the first 100,000 AIDS cases, and a comparison between the first and fourth 25,000 AIDS cases (also shown in Figures 1-3). Among the first 100,000 AIDS cases, 93.4% were male, 71.6% were between 30 and 49 years of age, 63.0% were White, and 35.5% were from Los Angeles County. Comparing the percentages for the first and the fourth 25,000 AIDS cases reveals a changing picture for the gender, racial/ethnic, and regional distribution of cases. Although 3.3% of the first 25,000 cases were female, 10.0% of the fourth 25,000 were female. The proportions of the following racial/ethnic groups were higher in the fourth 25,000 cases than in the first 25,000 cases: African Americans (11.8% to 20.3%), Latinas/os (12.6% to 23.6%), Asian/Pacific Islanders (1.5% to 2.4%), and American Indian/Alaska Natives (0.2% to 0.6%). Finally, the proportion of cases from San Francisco County declined from 28.2% to 16.2%, while the proportion of cases from San Diego County, Southern Urban counties, and the Rest of State increased by at least three percent.

Of the 100,000 AIDS cases, the categories of "men who have sex with men" (MSM) and "bisexual men" were the leading modes of exposure to HIV, but the proportion of AIDS cases in these categories declined

**Table 1. Demographic Characteristics of California's First 100,000 AIDS Cases and a Comparison of the First 25,000 and Fourth 25,000 Cases**

CHARACTERISTICS	First 100,000 AIDS Cases (1978-1997)		First 25,000 AIDS Cases (1978-1989)		Fourth 25,000 AIDS Cases (1994-1997)	
	Number	Percent	Number	Percent	Number	Percent
<b>SEX</b>						
Male	93,412	93.4%	24,163	96.7%	22,504	90.0%
Female	6,588	6.6%	837	3.3%	2,496	10.0%
<b>AGE AT DIAGNOSIS</b>						
<13	541	0.5%	169	0.7%	123	0.5%
13-19	276	0.3%	60	0.2%	90	0.4%
20-29	15,843	15.8%	4,280	17.1%	3,696	14.8%
30-39	44,914	44.9%	11,200	44.8%	11,350	45.4%
40-49	26,725	26.7%	6,185	24.7%	6,934	27.7%
50 & Over	11,701	11.7%	3,106	12.4%	2,807	11.2%
<b>RACE/ETHNICITY</b>						
White	63,004	63.0%	18,441	73.8%	13,213	52.9%
African American	16,178	16.2%	2,938	11.8%	5,079	20.3%
Latina/o	18,265	18.3%	3,150	12.6%	5,912	23.6%
Asian/Pacific Islander	1,965	2.0%	370	1.5%	594	2.4%
American Indian/Alaska Native	419	0.4%	53	0.2%	158	0.6%
Other/Unknown	169	0.2%	48	0.2%	44	0.2%
<b>GEOGRAPHIC REGION</b>						
Bay Area *	14,784	14.8%	3,432	13.7%	3,856	15.4%
Los Angeles County	35,468	35.5%	9,178	36.7%	9,004	36.0%
San Diego County	8,526	8.5%	1,716	6.9%	2,489	10.0%
San Francisco County	21,544	21.5%	7,053	28.2%	4,061	16.2%
Southern Urban **	10,021	10.0%	1,869	7.5%	2,737	10.9%
Rest of State	9,657	9.7%	1,752	7.0%	2,853	11.4%

\* Includes Alameda, Contra Costa, Napa, Solano, Sonoma, Marin, San Mateo, and Santa Clara Counties.

\*\* Includes Orange, Riverside, and San Bernardino Counties.

Note: Totals may not add to 100% due to rounding.

Source: California Department of Health Service, Office of AIDS, AIDS Case Registry, April 1997.

between the first 25,000 and the fourth 25,000 cases (Table 2 and Figure 4). The percent of new cases among heterosexuals attributed to injection drug use increased from 4.5% in the first 25,000 cases to 13.5% in the fourth 25,000 cases. The proportion of AIDS cases among heterosexual females increased from 1.0% in the first 25,000 cases to 4.4% in the fourth 25,000 cases.

**Table 2. Mode of Exposure to HIV Among Adolescents/Adults and Children in California's First 100,000 AIDS Cases and a Comparison of the First 25,000 and Fourth 25,000 Cases**

MODE OF EXPOSURE	First 100,000 AIDS Cases (1978-1997)		First 25,000 AIDS Cases (1978-1989)		Fourth 25,000 AIDS Cases (1994-1997)	
	Number	Percent	Number	Percent	Number	Percent
<b>ADOLESCENTS/ADULTS</b>						
Men Who Have Sex with Men (MSM)	61,872	62.2%	16,984	68.4%	13,660	55.0%
Bisexual Men	10,479	10.5%	2,801	11.3%	2,559	10.3%
Injection Drug User (IDU)						
MSM/Bisexual IDU	8,429	8.5%	2,459	9.9%	1,880	7.6%
Male Heterosexual IDU	7,139	7.2%	875	3.5%	2,440	9.8%
Female IDU	2,489	2.5%	257	1.0%	918	3.7%
Heterosexual						
Male	1,026	1.0%	101	0.4%	411	1.7%
Female	2,601	2.6%	237	1.0%	1,084	4.4%
Transfusion Recipient	1,496	1.5%	575	2.3%	237	1.0%
Coagulation Disorder	503	0.5%	162	0.7%	98	0.4%
Other/unknown	3,425	3.4%	380	1.5%	1,590	6.3%
Adolescents/Adults Subtotal	99,459	100.0%	24,831	100.0%	24,877	100.0%
<b>CHILDREN (&lt;13 years old)</b>						
Coagulation Disorder	29	5.4%	13	7.7%	1	0.8%
Transfusion Recipient	111	20.5%	58	34.3%	12	9.8%
Perinatal	399	73.8%	98	58.0%	110	89.4%
Undetermined	2	0.4%	0	0.0%	0	0.0%
Children Subtotal	541	100.0%	169	100.0%	123	100.0%

Note: Totals may not add to 100% due to rounding.

Source: California Department of Health Services, Office of AIDS, AIDS Case Registry, April 1997.

Table 3 presents a comparison of selected AIDS indicator diseases and conditions. *Pneumocystis carinii* pneumonia was diagnosed in 43.2% of the first 25,000 cases compared with 11.6% in the fourth 25,000. Cases diagnosed with a low CD4+ T-cell count increased from 4.7% in the first 25,000 cases to 74.4% in the fourth 25,000 cases, mainly due to the 1993 expansion of the AIDS case definition.

**Table 3. Comparison of Selected AIDS Indicator Diseases and Conditions in California's First 25,000 and Fourth 25,000 AIDS Cases**

DISEASE	First 25,000 AIDS Cases		Fourth 25,000 AIDS Cases	
	Number	Percent	Number	Percent
Kaposi's sarcoma	6,442	20.5%	1,176	4.0%
<i>Mycobacterium avium</i> complex	3,298	10.5%	957	3.2%
<i>Pneumocystis carinii</i> pneumonia	13,601	43.2%	3,455	11.6%
Low CD4+	1,474	4.7%	22,155	74.4%
Other	6,661	21.2%	2,022	6.8%
<b>TOTAL</b>	<b>31,476</b>	<b>100%</b>	<b>29,765</b>	<b>100%</b>

Note: Totals may not add to 100% due to rounding. Total cases >25,000 because some cases had more than one indicator disease or condition.

Source: California Department of Health Services, Office of AIDS, AIDS Case Registry, April 1997.

Among the 24 geographic-racial-age-exposure categories we used (Table 4), the percent difference between 1984-1986 and 1994-1996 was highest in non-White women, >35 years old, outside of Los Angeles and San Francisco (11,425%), followed by non-White men who did not have sex with men, ≥35 years old, outside of Los Angeles and San Francisco (1,879%), followed by non-White women, <35 years old, outside of Los Angeles and San Francisco (1,825%). The highest absolute numbers of AIDS cases in 1994-1996 among these 24 categories

**Table 4. California Adolescent/Adult AIDS Cases by Region, Race/Ethnicity, Mode of Exposure, and Age at Diagnosis-- 1984-1986, 1994-1996, and Percent Difference\***

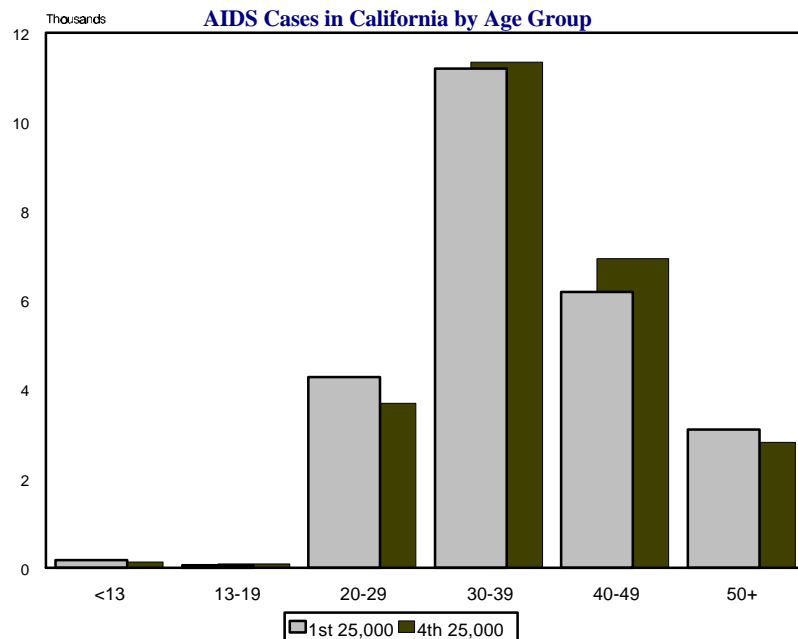
		Age < 35 Years				Age ≥ 35 Years			
		MSM	Non-MSM Male	Female		MSM	Non-MSM Male	Female	
		LA & SF, Non-White <35, MSM	LA & SF, Non-White <35, Non-MSM Male	LA & SF, Non-White <35, Female		LA & SF, Non-White ≥35, MSM	LA & SF, Non-White ≥35, Non-MSM Male	LA & SF, Non-White ≥35, Female	
Los Angeles and San Francisco	Non-White	1984-1986: 468	1984-1986: 132	1984-1986: 24	1984-1986: 542	1984-1986: 123	1984-1986: 29	1984-1986: 29	
		1994-1996: 1,796	1994-1996: 627	1994-1996: 375	1994-1996: 2,109	1994-1996: 1,179	1994-1996: 474	1994-1996: 474	
	White	% Difference: 284%	% Difference: 375%	% Difference: 1,463%	% Difference: 289%	% Difference: 859%	% Difference: 1,534%	% Difference: 1,534%	
		1984-1986: 1,316	1984-1986: 257	1984-1986: 16	1984-1986: 2,329	1984-1986: 325	1984-1986: 35	1984-1986: 35	
Rest of State	Non-White	1994-1996: 1,661	1994-1996: 446	1994-1996: 106	1994-1996: 3,772	1994-1996: 672	1994-1996: 131	1994-1996: 131	
		% Difference: 26%	% Difference: 74%	% Difference: 563%	% Difference: 62%	% Difference: 107%	% Difference: 274%	% Difference: 274%	
	White	Rest of State, Non-White <35, MSM	Rest of State, Non-White <35, Non-MSM Male	Rest of State, Non-White <35, Female	Rest of State, Non-White ≥35, MSM	Rest of State, Non-White ≥35, Non-MSM Male	Rest of State, Non-White ≥35, Female	Rest of State, Non-White ≥35, Female	
		1984-1986: 184	1984-1986: 73	1984-1986: 16	1984-1986: 130	1984-1986: 61	1984-1986: 4	1984-1986: 4	
	Non-White	1994-1996: 1,318	1994-1996: 615	1994-1996: 308	1994-1996: 1,281	1994-1996: 1,207	1994-1996: 461	1994-1996: 461	
		% Difference: 616%	% Difference: 742%	% Difference: 1,825%	% Difference: 885%	% Difference: 1,879%	% Difference: 11,425%	% Difference: 11,425%	
	White	Rest of State, Non-White <35, MSM	Rest of State, Non-White <35, Non-MSM Male	Rest of State, Non-White <35, Female	Rest of State, Non-White ≥35, MSM	Rest of State, Non-White ≥35, Non-MSM Male	Rest of State, Non-White ≥35, Female	Rest of State, Non-White ≥35, Female	
		1984-1986: 579	1984-1986: 165	1984-1986: 24	1984-1986: 923	1984-1986: 198	1984-1986: 33	1984-1986: 33	
	White	1994-1996: 1,529	1994-1996: 626	1994-1996: 250	1994-1996: 3,079	1994-1996: 881	1994-1996: 321	1994-1996: 321	
		% Difference: 164%	% Difference: 279%	% Difference: 942%	% Difference: 234%	% Difference: 345%	% Difference: 873%	% Difference: 873%	

MSM=Men who have sex with men. Non-MSM Male and Female include the following exposure categories: injection drug user, heterosexual, coagulation disorder, transfusion, other, and unknown.

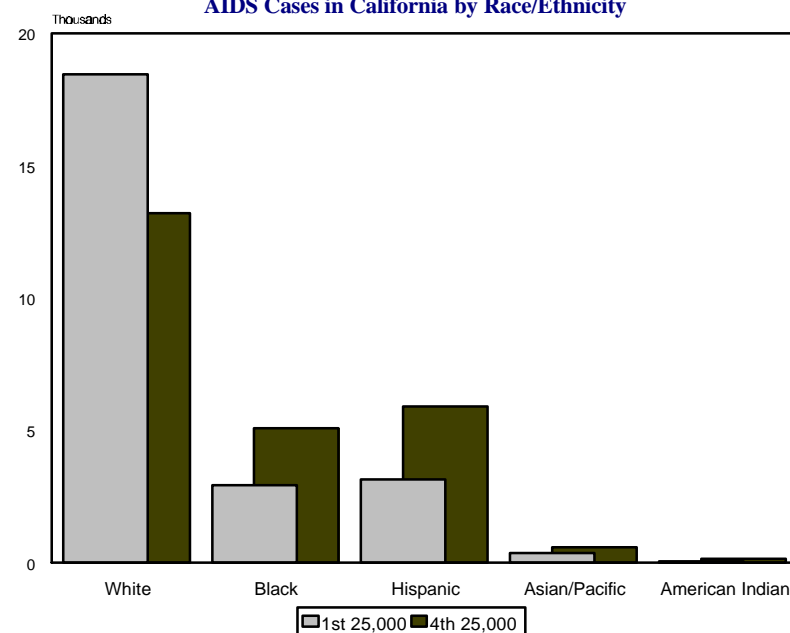
\*Percent Difference = the number of cases in 1994-1996 minus the number of cases in 1984-1986, divided by the number of cases in 1984-1986.

Source: California Department of Health Services, Office of AIDS, AIDS Case Registry, April 1997.

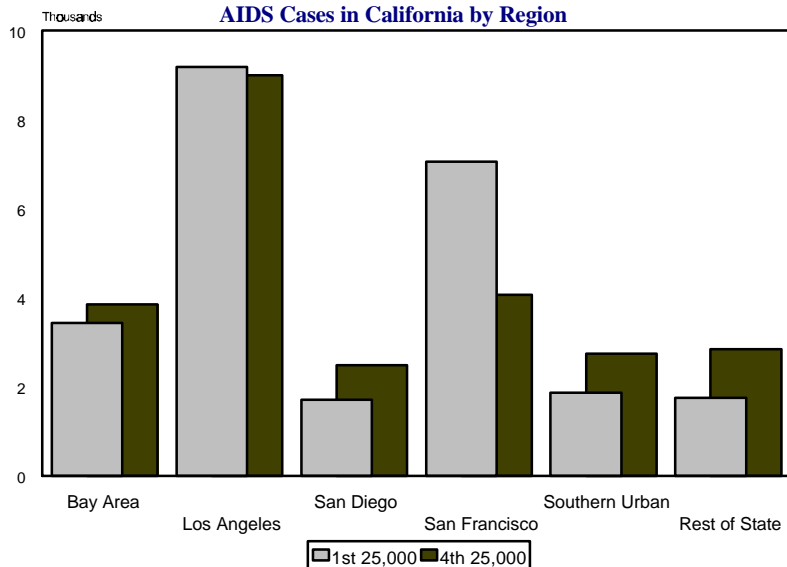
**Figure 1**  
Comparison of First 25,000 and Fourth 25,000  
AIDS Cases in California by Age Group



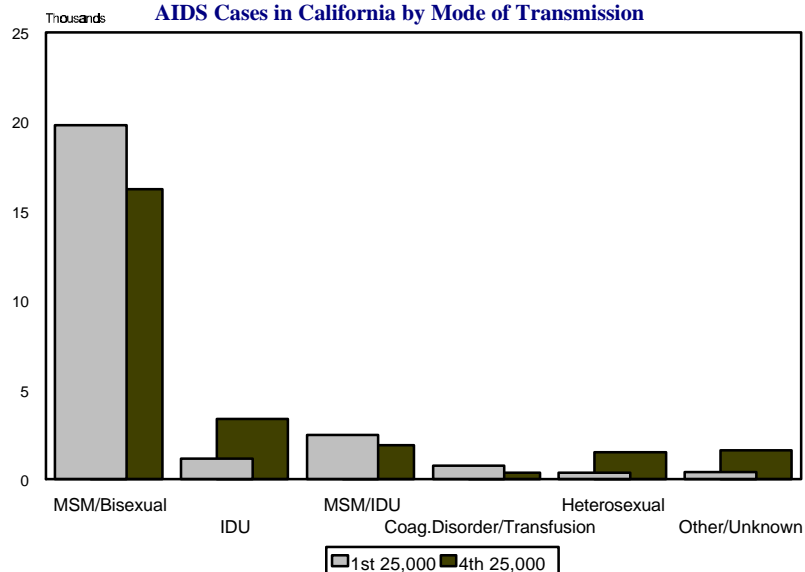
**Figure 2**  
Comparison of First 25,000 and Fourth 25,000  
AIDS Cases in California by Race/Ethnicity



**Figure 3**  
Comparison of First 25,000 and Fourth 25,000  
AIDS Cases in California by Region



**Figure 4**  
Comparison of First 25,000 and Fourth 25,000  
AIDS Cases in California by Mode of Transmission



were in White MSM  $\geq 35$  years old in Los Angeles and San Francisco (3,772), followed by White MSM  $\geq 35$  years old outside of Los Angeles and San Francisco (3,079).

## Discussion

In the United States, the first 100,000 cases of AIDS were reported by July 1989<sup>4</sup> and the first 500,000 by October 1995.<sup>5</sup> Through December 1989, of the 117,781 AIDS cases reported in the United States, 23,265 (19.7%) were reported from California.<sup>6</sup> In contrast, of the 69,151 AIDS cases reported in the United States in 1996, only 9,610 (13.9%) were reported from California.<sup>7</sup>

AIDS surveillance data have numerous limitations<sup>2</sup> including the following five. First, AIDS data do not necessarily reflect patterns of recent HIV infections because the duration between HIV infection and AIDS is approximately 10 years.<sup>8</sup> Estimates of HIV prevalence can be made from AIDS case data;<sup>9</sup> however, we are unaware of any widely-accepted methods of estimating recent HIV incidence from AIDS cases.

Second, changes in the case definition make analyses of trends difficult. In 1993, the number of reported cases of AIDS sharply increased because of the addition of cases with low CD4+ counts, pulmonary tuberculosis, recurrent pneumonia, and invasive cervical cancer. States with HIV infection reporting (e.g., Virginia<sup>10</sup> by name and Illinois<sup>11</sup> anonymously) were able to characterize time trends in reported HIV infections before and after 1993 without regard to the case definition for AIDS.

Third, AIDS cases may be underreported. One recent study found that states with laboratory-initiated CD4+ reporting and HIV reporting by name had a greater percent increase in reported AIDS cases between 1992 and 1994 (117.5%), than states with only CD4+ reporting (65.8%), neither CD4+ nor HIV reporting (56.6%), or only HIV reporting (50.9%).<sup>12</sup> These findings suggest that HIV and CD4+ reporting, or CD4+ reporting alone, may improve the completeness of AIDS surveillance. California has neither CD4+ nor HIV reporting.

Fourth, there may be reporting delays for cases that are reported. We did not adjust for reporting delays, for the expansion of the AIDS case definition in 1993, or for reclassification of cases with un-reported risk, as have been performed in other studies.<sup>13,14</sup>

Finally, it is possible that recently-introduced drug therapies may delay the onset of AIDS after HIV

infection, a phenomenon similar to that observed after the introduction of zidovudine.<sup>15</sup>

The analyses in this study have at least two limitations. First, our comparison of 1984-1986 data with 1994-1996 data involved only two points in time and used 24 broad geographic-racial-age-exposure categories. For example, female AIDS cases in California associated with injection drug use increased 44.8% from 1988 to 1991, but gay/bisexual male AIDS cases associated with injection drug use increased only 7.8%.<sup>13</sup> Such specific findings are not evident in our analyses, since we did not examine 1988-1991 data and did not differentiate cases among female injection drug use from cases among females with other risk factors. Second, we did not calculate rates. For example, among women, Los Angeles County has the highest numbers of AIDS cases diagnosed per year among all regions, but San Francisco County has the highest incidence rates of AIDS per million population.<sup>16</sup>

Surveillance systems for HIV/AIDS continue to evolve to provide better data for public health prevention and care programs. In recognition of the limitations of AIDS surveillance, the CDC convened a national "Consultation on the Future of HIV/AIDS Surveillance" in May 1997. Upcoming issues of the *California HIV/AIDS Update* will contain articles on the developing discussions as the information becomes available.

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## Death Reporting for AIDS Cases in California, 1992-1996

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Recent reports from the Centers for Disease Control and Prevention<sup>1,2</sup> have documented a decrease in deaths due to acquired immunodeficiency syndrome (AIDS) in the first six months and the first nine months of 1996 compared with the same periods in 1995. This report summarizes the surveillance system for AIDS deaths in California and its limitations, and presents data on California AIDS deaths from 1992-1996.

### California AIDS Surveillance System and Its Limitations

After AIDS cases are reported to a local health department (LHD), the LHD AIDS surveillance staff review vital statistics records to identify deaths among reported cases. Depending on the LHD, the frequency of these vital statistics reviews may be weekly, monthly, or quarterly. In addition, some LHDs attempt to review medical records of people with AIDS quarterly or semi-annually during the course of the disease. The LHD then reports any AIDS deaths to the State.

Data generated by this surveillance system are subject to several limitations. First, reporting delays for deaths may occur at any of the following steps: the transmittal of the fact of death to the vital statistics office, the collection of the information by LHD

surveillance staff, and the transmittal of that information to the State (usually at the end of every month). Furthermore, a person with AIDS may die in a location other than where the case was diagnosed (e.g., out of state), causing additional reporting delay. Despite these limitations, the Office of AIDS estimates that over 90% of AIDS deaths are reported within 6 months of the date of death.<sup>3</sup>

Second, the AIDS case diagnosis occurs at different points in the disease for different patients, which may lead to widely differing times that an individual is reported as living with AIDS. Currently, no method can determine with any precision when each person with AIDS became infected with HIV. It is possible that recent trends in AIDS deaths could reflect earlier diagnosis as well as improved therapy.<sup>4</sup>

Third, as for cancer, mortality trends for AIDS may be influenced by a number of factors, including incidence of AIDS.<sup>5</sup> The statistical technique of survival analysis, not analysis of mortality trends, is most appropriate for determining whether or not survival has increased. A recently-published survival analysis using California AIDS surveillance data showed that there was no improvement in survival for persons with AIDS after diagnosis of *Pneumocystis carinii* pneumonia (PCP) between 1988 and 1992, despite the availability of zidovudine and PCP prophylaxis in that period.<sup>6</sup>

### 1992-1996 California AIDS Deaths

Table 1 displays deaths by county and Table 2 displays deaths by age, race/ethnicity, and mode of transmission for California AIDS cases from 1992-1996. Compared with the first and second halves of 1995, the total number of AIDS deaths in the first and second halves of 1996 were 22% and 52% lower respectively. County-specific AIDS deaths reflect similar trends. Of the 23 largest counties, only 6 experienced a decline in deaths from 1992 to 1993, while 22 of the 23 experienced a decline between 1995 and 1996. The percent of decline in reported deaths increased as well over this period.

Table 1. California AIDS Deaths by County and Half-Year of Death, January 1992-December 1996

County	1992		1993		1994		1995		1996	
	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec
Alameda	167	186	176	178	185	186	173	177	149	85
Alpine	0	0	0	0	0	0	0	0	0	0
Amador	0	2	0	0	3	2	0	3	1	1
Butte	7	8	6	5	6	8	4	7	7	1
Calaveras	0	1	1	1	0	0	0	0	1	0
Colusa	1	0	0	1	1	0	1	1	0	2
Contra Costa	68	83	69	81	84	69	77	83	54	33
Del Norte	1	1	0	1	2	1	1	2	0	1
El Dorado	3	2	6	5	3	5	9	6	4	2
Fresno	36	40	35	35	48	35	45	32	21	30
Glenn	0	0	0	0	1	0	0	0	0	0
Humboldt	5	6	6	4	7	11	8	5	6	1
Imperial	3	4	1	1	2	3	2	5	1	1
Inyo	0	0	0	1	0	0	1	1	1	0
Kern	21	27	31	33	25	27	22	13	20	17
Kings	3	2	5	6	6	3	3	3	4	1
Lake	0	1	3	6	2	6	0	3	3	4
Lassen	0	0	0	1	0	2	1	3	0	2
Los Angeles	1,231	1,375	1,330	1,337	1,255	1,339	1,226	1,126	973	565
Madera	3	1	3	1	9	3	3	4	4	3
Marin	41	32	33	42	46	49	42	42	41	15
Mariposa	0	0	0	0	0	0	1	0	1	0
Mendocino	6	2	4	10	12	6	5	6	6	1
Merced	0	3	7	7	2	4	7	5	5	7
Modoc	0	0	0	0	0	0	0	0	0	0
Mono	0	0	0	0	0	1	0	0	0	0
Monterey	13	22	19	30	26	24	20	18	22	15
Napa	2	6	3	2	4	6	3	6	7	0
Nevada	3	1	4	2	3	6	4	2	1	1



County	1992		1993		1994		1995		1996	
	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec
Orange	175	173	143	135	147	164	137	118	107	63
Placer	5	3	5	1	7	4	2	4	4	2
Plumas	0	0	0	0	0	0	0	0	1	0
Riverside	98	121	100	145	137	150	95	106	76	73
Sacramento	80	102	102	109	125	118	103	103	83	49
San Benito	1	3	1	0	0	0	0	2	0	0
San Bernardino	71	79	96	84	78	95	88	69	56	37
San Diego	294	307	314	397	326	387	313	304	245	129
San Francisco	830	826	823	801	792	821	691	639	529	297
San Joaquin	14	25	20	30	20	33	24	31	28	17
San Luis Obispo	15	16	9	11	24	14	12	8	9	2
San Mateo	51	65	68	71	55	65	62	49	26	12
Santa Barbara	17	24	25	26	21	26	34	26	21	9
Santa Clara	82	86	101	117	90	126	87	91	67	41
Santa Cruz	10	13	14	17	21	20	15	11	13	6
Shasta	6	4	3	6	5	7	4	1	2	1
Sierra	0	0	0	0	0	1	1	0	0	0
Siskiyou	1	0	0	1	1	0	0	1	1	1
Solano	32	37	35	33	41	27	42	36	30	11
Sonoma	46	60	40	72	53	54	48	58	46	10
Stanislaus	13	12	18	12	17	18	24	24	21	7
Sutter	2	0	0	0	1	2	2	2	2	4
Tehama	1	0	1	0	1	0	4	0	0	0
Trinity	1	1	0	1	0	0	1	1	0	1
Tulare	5	1	9	9	7	9	10	9	11	7
Tuolumne	3	2	2	1	2	2	2	1	2	0
Ventura	29	28	35	28	20	22	27	35	22	14
Yolo	6	2	4	5	3	8	8	8	5	4
Yuba	2	2	1	2	1	2	4	2	1	1
Unknown	0	1	0	0	1	0	0	0	0	0
<b>TOTAL</b>	<b>3,504</b>	<b>3,798</b>	<b>3,711</b>	<b>3,904</b>	<b>3,728</b>	<b>3,971</b>	<b>3,498</b>	<b>3,292</b>	<b>2,740</b>	<b>1,586</b>

Source: California Department of Health Services, Office of AIDS, June 30, 1997.

**Table 2. California AIDS Deaths by Age Group, Race/Ethnicity, and Mode of Transmission and Half Year of Death, January 1992-December 1996.**

AGE GROUP	1992		1993		1994		1995		1996	
	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec
< 19 years	22	23	26	33	32	33	26	20	18	12
20 - 29 years	515	540	546	568	495	550	497	438	375	228
30 - 39 years	1,516	1,660	1,637	1,732	1,690	1,783	1,536	1,455	1,226	691
40 - 49 years	979	1,090	1,010	1,094	1,054	1,099	1,000	991	765	449
> 49 years	472	485	492	477	457	506	439	388	356	206
<b>TOTAL</b>	<b>3,504</b>	<b>3,798</b>	<b>3,711</b>	<b>3,904</b>	<b>3,728</b>	<b>3,971</b>	<b>3,498</b>	<b>3,292</b>	<b>2,740</b>	<b>1,586</b>
<b>RACE/ETHNICITY</b>										
White	2,327	2,475	2,431	2,485	2,275	2,429	2,078	1,962	1,499	868
African American	528	595	548	660	645	668	627	570	533	335
Hispanic	566	661	641	668	679	767	667	668	619	340
Other	83	67	91	91	129	107	126	92	89	43
<b>TOTAL</b>	<b>3,504</b>	<b>3,798</b>	<b>3,711</b>	<b>3,904</b>	<b>3,728</b>	<b>3,971</b>	<b>3,498</b>	<b>3,292</b>	<b>2,740</b>	<b>1,586</b>
<b>MODE OF TRANSMISSION</b>										
MSM/Bisexual Male	2,669	2,844	2,774	2,862	2,686	2,875	2,443	2,331	1,859	1,024
IDU	293	328	373	387	429	413	388	372	354	211
MSM/Bisexual Male IDU	250	313	270	330	273	302	309	282	231	140
Heterosexual Contact	97	98	113	117	135	169	144	146	129	81
Other Risk	195	215	181	208	205	212	214	161	167	130
<b>TOTAL</b>	<b>3,504</b>	<b>3,798</b>	<b>3,711</b>	<b>3,904</b>	<b>3,728</b>	<b>3,971</b>	<b>3,498</b>	<b>3,292</b>	<b>2,740</b>	<b>1,586</b>

Source: California Department of Health Services, Office of AIDS, June 30, 1997.

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# Prevalence of HIV Among Civilian Applicants for Military Service in California 1985-1996

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## Introduction

As of January 1, 1996, the estimated prevalence of human immunodeficiency virus (HIV) infection in California was 94,300-130,500.<sup>1</sup> Estimating the number of Californians living with HIV infection is important for both state and local health departments in planning, implementing, and evaluating HIV prevention strategies. HIV prevalence surveys of healthy populations can identify target groups for HIV prevention and education. The U.S. Department of Defense conducts such a survey via its military HIV screening program. This program provides seroprevalence data on large cross sections of the U.S. population.

Since October 1985, all civilian applicants for U.S. military service have been required to undergo HIV testing as part of their medical entrance examination. Applicants found to be HIV positive are excluded from military service but receive counseling from a military physician and referrals to HIV/AIDS specialists and counselors in their own communities.<sup>2</sup> Between October 1985 and December 1996, the Department of Defense conducted HIV tests on serum specimens from 432,317 California military applicants, and 0.10%

were seropositive. Males represented 85.2% (368,513) of the total applicants, of which 0.11% were seropositive. Females represented 14.8% (63,804) of the total applicants, of which 0.03% were seropositive. Overall, the prevalence of HIV has shown a statistically significant decrease from 0.22% in October 1985 to 0.03% in 1996, probably reflecting self-deferral of potential applicants that suspect they have been exposed to HIV.<sup>3,4</sup> This study compares differences in HIV prevalence between California applicants and those in other states/territories. It also addresses geographic/ demographic differences between regions of California and trends in HIV prevalence.

## Methods

Serologic specimens from military applicants are tested for antibodies to HIV using a commercial enzyme immunoassay (EIA). Repeatedly reactive specimens are confirmed by Western blot.<sup>5</sup> The Department of Defense shares these results with the Centers for Disease Control and Prevention (CDC), which in turn provides this information (excluding personal identifiers) to state and local health departments. This study includes HIV test results for all California military applicants from October 1985 through December 1996. Prior to July 1993, U.S. military policy required recruiting officials to inform applicants that drug use and homosexual activity were grounds for exclusion from entry into military service. Applicants acknowledging these activities were excluded prior to medical evaluation and HIV screening. On July 19, 1993, President Clinton authorized the "don't ask, don't tell" policy, under which military applicants are no longer asked about homosexual activity.<sup>5</sup>

This study calculated crude odds ratios to measure associations between HIV infection and descriptive variables. The Mantel-Haenszel chi-square test was used for significance testing, with a *p*-value greater than 0.05 considered not significant.

**Acknowledgments:** *I wish to thank Dr. Richard Sun, Dr. Juan Ruiz, Susan Sabatier, Mi Chen, Dr. Philip Langrish, and Jean Iacino for their constructive comments for this article.*

## Demographic/Geographic Analyses

The applicants' reported home of record provides the state and county information we used to define state and region.<sup>5</sup> We used HIV prevalence rates and geographic distribution to select the following states

and territories for comparison with California: Puerto Rico, New York, New Jersey, Maryland, and Texas. State and territory data are cumulative by race/ethnicity and age group. To characterize regional differences among Californians, counties were grouped into the following regions: Los Angeles County, San Francisco County, Other Bay Area (Alameda, Contra Costa, Marin, Napa, San Mateo, Santa Clara, Solano, and Sonoma Counties), San Diego County, Southern Metro (Orange, Riverside, and San Bernardino Counties), and the Rest of California. Regional data are cumulative by gender and race/ethnicity.

### ***Trend Analyses***

Trends in HIV prevalence among California military applicants were assessed for data collected from October 1985 through December 1996, by race/ethnicity and age. CDC receives military applicant HIV testing data quarterly and data for more recent years are subject to updating by the military. Data for the most recent quarter include applicants tested during that quarter and applicants whose test results were not available at the previous report.

### **Results**

#### ***Demographic/Geographic***

Table 1 presents cumulative HIV prevalence data by race/ethnicity for selected states and territories. Prevalence in these seven states/territories ranged from 0.09% in Texas to 0.34% in Puerto Rico. Californians represented about 8.5% of all civilian military applicants, and they accounted for 9.8% of seropositive applicants. The HIV prevalence for California ranked fifth among the six states/territories. Applicants tested in Puerto Rico were three times more likely than California applicants to be HIV positive (OR 3.3).

Whites accounted for the majority of military applicants in New York (63.0%), Texas (61.2%) California (59.6%), New Jersey (59.4%), and Maryland (57.1%). However, Whites accounted for only 17.8%, 18.0%, and 15.8%, and of the seropositive applicants in New York, New Jersey, and Maryland, respectively. In contrast, in California and Texas 44.0% and 42.3% of the seropositive applicants were White, respectively. Although only 11.9% of California applicants and 15.8% of Texas applicants were African American, they accounted for 41.6% and 42.6% of the sero-positive cases, respectively. In California, African American military applicants were nearly five times more likely than White applicants to be HIV positive (OR 4.8). In

Puerto Rico, Hispanics accounted for the majority of applicants (96.0%) and seropositive applicants (84.7%).

Except in Texas, seroprevalence was highest among applicants aged 30 years and over. In California, HIV prevalence ranged from 0.03% among applicants aged 17-19 years to 0.33% among applicants aged 30 and over. California military applicants aged 30 and over were nearly three times (OR 2.7) more likely than applicants aged 20-24 to be positive for HIV (Table 2).

Table 3 presents cumulative HIV prevalence among civilian military applicants in California by gender, region, and race/ethnicity. HIV prevalence was highest among both male and female applicants in San Francisco County (0.39% and 0.17%, respectively). Male applicants in San Francisco County were more than twice as likely to be HIV positive as male applicants in Los Angeles County (OR 2.3) and almost seven times more likely than applicants in the Rest of California (OR 6.9). Among males, sero-prevalence was highest among African Americans for all regions of California.

### ***Trends***

HIV prevalence among California military applicants declined significantly between 1985 (0.22%) and 1996 (0.03%); however, it increased between 1992 and 1993, from 0.05% to 0.08% (Figure 1). This peak coincides with the implementation of President Clinton's "don't ask, don't tell" policy in July 1993. To investigate the possible influence of this policy, we compared HIV prevalence semi-annually between 1992 and 1994. The prevalence of HIV increased from 0.01% during the first half of 1992 to 0.08% in the second half of 1992, remained at 0.08% throughout 1993, declined to 0.06% during the first half of 1994, and dropped to 0.01% during the second half of 1994.

**Table 1. Geographic Prevalence of HIV Infection Among Civilian Applicants for U.S. Military Service, by Selected State/Territory and Race/Ethnicity, 1985-1996**

State/Territory	White			African American			Hispanic			Other <sup>1</sup>			Total		
	No. Tested	No. Positive	% Positive	No. Tested	No. Positive	% Positive	No. Tested	No. Positive	% Positive	No. Tested	No. Positive	% Positive	No. Tested	No. Positive	% Positive
Puerto Rico	1,139	17	1.49	142	3	2.11	36,830	111	0.30	256	0	0.00	38,367	131	0.34
New York	176,121	118	0.07	64,281	392	0.61	24,960	99	0.40	14,250	55	0.39	279,612	664	0.24
New Jersey	60,660	42	0.07	27,550	164	0.60	8,677	17	0.20	5,295	10	0.19	102,182	233	0.23
Maryland	54,220	26	0.05	37,081	137	0.37	933	0	0.00	2,738	2	0.07	94,972	165	0.17
California	257,618	196	0.08	51,451	185	0.36	79,949	42	0.05	48,299	22	0.05	432,317	445	0.10
Texas	240,074	157	0.07	61,953	158	0.26	81,356	49	0.06	8,666	7	0.08	392,049	371	0.09

<sup>1</sup>Includes American Indian/Alaskan, Asian/Pacific Islanders and other races.

Note: Data are received quarterly. Data from recent years are subject to updating.

Source: Department of Defense, October 1985 - December 1996.

**Table 2. Geographic Prevalence of HIV Infection Among Civilian Applicants for U.S. Military Service, by Selected State/Territory and Age Group, 1985-1996**

State/Territory	17-19			20-24			25-29			30 and Over			Total		
	No. Tested	No. Positive	% Positive	No. Tested	No. Positive	% Positive	No. Tested	No. Positive	% Positive	No. Tested	No. Positive	% Positive	No. Tested	No. Positive	% Positive
Puerto Rico	11,858	6	0.05	14,139	35	0.25	6,769	46	0.68	5,601	44	0.79	38,367	131	0.34
New York	140,394	65	0.05	89,676	218	0.24	29,144	214	0.73	20,398	167	0.82	279,612	664	0.24
New Jersey	53,138	24	0.05	31,805	70	0.22	10,009	69	0.69	7,230	70	0.97	102,182	233	0.23
Maryland	49,418	26	0.05	28,199	53	0.19	9,867	47	0.48	7,488	39	0.52	94,972	165	0.17
California	230,909	73	0.03	127,814	155	0.12	42,996	116	0.27	30,598	101	0.33	432,317	445	0.10
Texas	206,063	61	0.03	127,673	169	0.13	35,887	91	0.25	22,426	50	0.22	392,049	371	0.09

Note: Data are received quarterly. Data from recent years are subject to updating.

Source: Department of Defense, October 1985 - December 1996.

Table 3. Prevalence of HIV among Civilian Applicants for U.S. Military Service, by Gender, Region, and Race/Ethnicity, California, 1985-1996

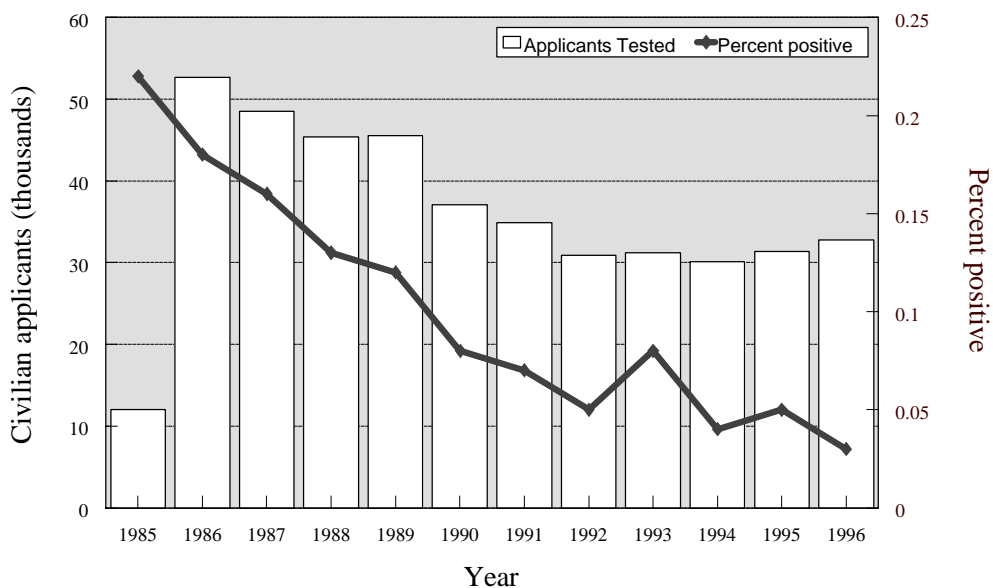
Gender/Region	White			African American			Hispanic			Other <sup>1</sup>			Total		
	No. Tested	No. Positive	% Positive	No. Tested	No. Positive	% Positive	No. Tested	No. Positive	% Positive	No. Tested	No. Positive	% Positive	No. Tested	No. Positive	% Positive
<b>Male</b>															
Los Angeles County	40,224	51	0.13	16,910	87	0.51	26,319	17	0.06	12,242	8	0.07	95,695	163	0.17
San Francisco County	2,051	13	0.63	1,015	7	0.69	700	2	0.29	2,175	1	0.05	5,941	23	0.39
Other Bay Area <sup>2</sup>	38,318	33	0.09	7,656	44	0.57	6,353	4	0.06	9,218	4	0.04	61,545	85	0.14
San Diego County	21,949	23	0.10	3,910	16	0.41	5,303	5	0.09	6,120	5	0.08	37,282	49	0.13
Southern Metro <sup>3</sup>	39,603	25	0.06	4,458	8	0.18	9,614	6	0.06	4,739	2	0.04	58,414	41	0.07
Rest of California	79,315	41	0.05	6,332	12	0.19	16,916	8	0.05	7,073	1	0.01	109,636	62	0.06
<b>Subtotal</b>	<b>221,460</b>	<b>186</b>	<b>0.08</b>	<b>40,281</b>	<b>174</b>	<b>0.43</b>	<b>65,205</b>	<b>42</b>	<b>0.06</b>	<b>41,567</b>	<b>21</b>	<b>0.05</b>	<b>368,513</b>	<b>423</b>	<b>0.11</b>
<b>Female</b>															
Los Angeles County	5,638	1	0.02	4,066	5	0.12	3,591	0	0.00	1,681	0	0.00	14,976	6	0.04
San Francisco County	428	2	0.47	258	0	0.00	120	0	0.00	404	0	0.00	1,210	2	0.17
Other Bay Area <sup>2</sup>	6,158	1	0.02	2,291	5	0.22	1,000	0	0.00	1,470	1	0.07	10,919	7	0.06
San Diego County	4,048	1	0.02	1,240	0	0.00	848	0	0.00	1,010	0	0.00	7,146	1	0.01
Southern Metro <sup>3</sup>	6,228	2	0.03	1,417	0	0.00	1,567	0	0.00	773	0	0.00	9,985	2	0.02
Rest of California	13,658	3	0.02	1,898	1	0.05	2,618	0	0.00	1,394	0	0.00	19,568	4	0.02
<b>Subtotal</b>	<b>36,158</b>	<b>10</b>	<b>0.03</b>	<b>11,170</b>	<b>11</b>	<b>0.10</b>	<b>9,744</b>	<b>0</b>	<b>0.00</b>	<b>6,732</b>	<b>1</b>	<b>0.01</b>	<b>63,804</b>	<b>22</b>	<b>0.03</b>
<b>Total</b>	<b>257,618</b>	<b>196</b>	<b>0.08</b>	<b>51,451</b>	<b>185</b>	<b>0.36</b>	<b>74,949</b>	<b>42</b>	<b>0.06</b>	<b>48,299</b>	<b>22</b>	<b>0.05</b>	<b>432,317</b>	<b>445</b>	<b>0.10</b>

<sup>1</sup>Includes American Indian/Alaskan, Asian/Pacific Islanders and other races.<sup>2</sup>Includes Alameda, Contra Costa, Marin, Napa, San Mateo, Santa Clara, Solano, and Sonoma Counties.<sup>3</sup>Includes Orange, Riverside, and San Bernardino Counties

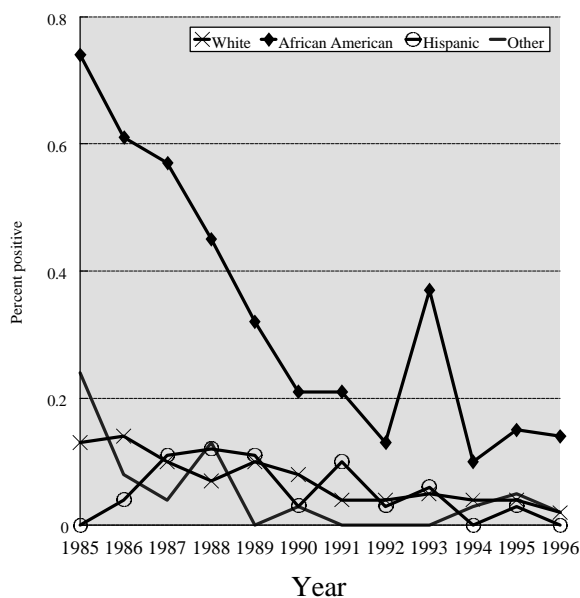
Note: Data are received quarterly. Data from recent years are subject to updating.

Source: Department of Defense, October 1985 - December 1996.

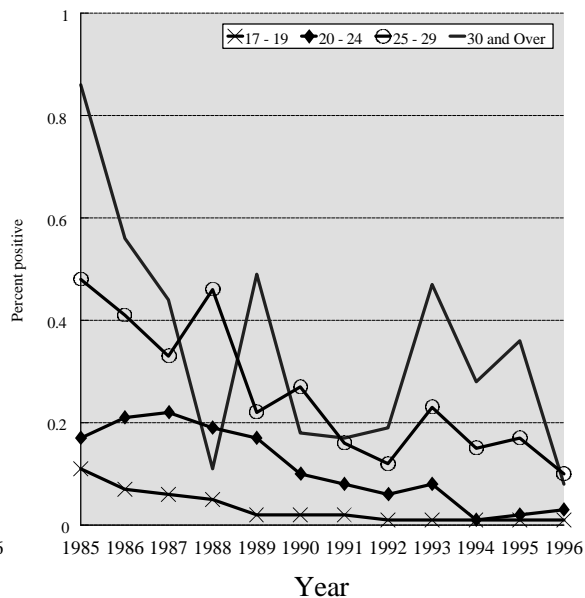
**Figure 1. Prevalence of HIV Among Civilian Applicants for U.S. Military Service, California, 1985-1996**



**Figure 2. Prevalence of HIV Among Civilian Applicants for U.S. Military Service, by Race/Ethnicity, California, 1985-1996**



**Figure 3. Prevalence of HIV Among Civilian Applicants for U.S. Military Service, by Age Group, California, 1985-1996**



Note: Data are received quarterly and are subject to updating.  
Source: Department of Defense, October 1985 - December 1996.

HIV prevalence among White military applicants showed a steady downward trend from 0.14% in 1986 to 0.02% in 1996. A more dramatic decrease in seroprevalence occurred among African American applicants during the same period, from 0.61% in 1986 to 0.14% in 1996 (Figure 2). However, between 1992 and 1993 there was a significant increase in seropositivity among African American applicants, from 0.13% in 1992 to 0.37% in 1993. Between 1990 and 1996, the percent of HIV-positive applicants who were African American increased from 30% to 50%, while the percent who were White decreased from 60% to 40%.

The overall HIV prevalence among teenage military applicants (aged 17-19) decreased from 0.07% in 1986 to 0.01% in 1996 (Figure 3). Since 1985, 17-19 year olds have represented more than half of all military applicants who have undergone HIV screening annually, except for 1991 (49.3%); however, with few exceptions, they have accounted for the lowest percent of seropositive applicants annually. With the exception of 1988, 1990, and 1996, applicants aged 30 and over and accounted for the lowest number of applicants and the highest HIV prevalence, ranging from 0.56% in 1986 to 0.08% in 1996.

## Discussion

Among military applicants in California, HIV infection rates appear to be stable or declining. There was a downward trend in HIV prevalence from 1985-1996, with a slight peak in 1993. African American applicants showed the same trend and the same peak in 1993. In 1993, African Americans represented 9.4% (2,938/31,188) of California military applicants being tested and accounted for 45.8% (11/24) of all HIV positive test results. The data indicate that following President Clinton's new policy on gays in the military, more HIV-positive homosexual men may have applied to the military.

In 1996, applicants from Los Angeles County accounted for one quarter of all applicants tested in California, but represented 40% of the HIV-positive test results. Overall, individuals aged 17-19 represented half of all civilian applicants for military service, but had the lowest HIV prevalence, whereas those 30 and over had the least number of applicants and the highest HIV prevalence. In California, African American military applicants were nearly five times more likely than White applicants to be positive for HIV.

There are some limitations to the representativeness of these data. Civilians who suspect they are HIV infected may avoid enlisting. In addition,

demographic characteristics of military applicants may differ from those of the general population, with an over-representation of males and ethnic minorities.<sup>3,6</sup> Before July 1993, applicants were interviewed about drug use and homosexual activity prior to being tested. Consequently, injection drug users and men who have sex with men were likely to have been under-represented among applicants tested. Despite these limitations, these data will permit comparisons with HIV seropositivity data on other screened volunteer populations (e.g., childbearing women, donors at blood banks and plasma centers, clients of sexually transmitted disease clinics, and injection drug users entering methadone treatment).<sup>3</sup> Information on the prevalence of HIV infection among military applicants is useful to identify specific populations at risk for HIV infection and to target and evaluate education and prevention efforts.

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## HIV/AIDS News...

### **Draft Recommendations for the Use of Antiretroviral Drugs During Pregnancy for Maternal Health and Reduction of Perinatal Transmission of HIV-1**

The U.S. Public Health Service has issued draft guidelines on the use of antiretroviral drugs to reduce perinatal transmission of HIV and to treat HIV infection in pregnant women. The guidelines represent a consensus of 35 expert consultants including medical, public health, and bioethics specialists, HIV-infected women, and AIDS advocacy organization representatives.

The draft guidelines were subject to a 30-day public comment period, which has now closed. After reviewing the comments, the panel will publish final guidelines in the *Morbidity and Mortality Weekly Report*. Until then, the draft remains available from the HIV/AIDS Treatment Information Service at 800-448-0440 and at their Web site at [www.hivatis.org](http://www.hivatis.org).

Source: *HIV/AIDS Treatment Information Service*, [www.hivatis.org](http://www.hivatis.org).

### **Draft HIV/AIDS Treatment Guidelines for Adults and Adolescents**

The Panel on Clinical Practices for Treatment of HIV Infection, convened jointly by the Department of Health and Human Services and the Henry J. Kaiser Family Foundation, has issued draft *Guidelines for the Use of Antiretroviral Agents in HIV-Infected Adults and Adolescents*. The guidelines recommend that all individuals with CDC-defined AIDS should receive combination antiretroviral therapy, preferably with three drugs including a protease inhibitor. The guidelines further recommend that treatment be guided by regular monitoring of the patient's viral load and CD4+ count. At least two drugs in a three drug regimen should be changed when there are indications (such as an increase in viral load) that treatment is failing. Treatment with only two drugs is considered less than optimal and treatment with only one drug is not recommended. An exception is made for the use of AZT monotherapy to prevent vertical transmission of HIV in pregnant women who do not require antiretroviral drugs for their own treatment.

The guidelines relied in part on the companion document *Report of the NIH Panel to Define Principles*

*of Therapy of HIV Infection*, which provides the scientific rationale for therapeutic strategies.

Both documents were subject to a 30-day public comment period, which has now closed. After reviewing the comments, the panel will publish final versions of both documents in the *Morbidity and Mortality Weekly Report*. Until then, the drafts remain available from the National AIDS Clearing-house at 800-458-5231 and at their Web site at [www.cdcnac.org](http://www.cdcnac.org) or from the HIV/AIDS Treatment Information Service at 800-448-0440 and at their Web site at [www.hivatis.org](http://www.hivatis.org).

Source: *HHS News*, June 19, 1997.

### **Two Drugs Better than One for Treating Children with Symptomatic HIV**

A large multicenter study supported by the National Institutes of Health suggests that initial therapy using zidovudine (AZT) combined with either lamivudine (3TC) or didanosine (ddI) is more effective at delaying disease progression or death in children with symptomatic HIV infection than using ddI alone.

Preliminary results of the study indicate that combination antiretroviral therapy should be the preferred initial treatment for symptomatic HIV-infected children, particularly those under three years of age, who have never been treated with anti-HIV drugs.

Based on a review of preliminary results of the study, an independent Data and Safety Monitoring Board recommended that enrollment in the study (known as AIDS Clinical Trial Group [ACTG] 300) be stopped early and the study closed due to the obvious improvement in clinical benefits conferred by the combination regimens. The board found that the AZT/3TC combination treatment decreased the risk of death by 80 percent relative to ddI treatment alone.

Source: *NIH News Release*, June 26, 1997.

**Table 1.** AIDS cases by age group, exposure category, and gender reported July 1, 1995 through June 30, 1996 and July 1, 1996 through June 30, 1997; and cumulative totals by age group through June 30, 1997 in California.

Adult/adolescent Exposure Category	Male		Female		Totals		
	Jul. 1995- Jun. 1996 No. (%)	Jul. 1996- Jun. 1997 No. (%)	Jul. 1995- Jun. 1996 No. (%)	Jul. 1996- Jun. 1997 No. (%)	Jul. 1995- Jun. 1996 No. (%)	Jul. 1996- Jun. 1997 No. (%)	Cumulative Total No. (%)
Homosexual/bisexual	6,327 (73)	4,866 (71)	-- (--)	-- (--)	6,327 (66)	4,866 (64)	73,234 (73)
IDU (heterosexual)	934 (11)	675 (10)	325 (36)	259 (33)	1,259 (13)	934 (12)	9,692 (10)
Homosexual/bisexual IDU	703 (8)	500 (7)	-- (--)	-- (--)	703 (7)	500 (7)	8,525 (8)
Lesbian/bisexual IDU	-- (--)	-- (--)	14 (2)	8 (1)	14 (--)	8 (--)	109 (--)
Coagulation Disorders	46 (1)	20 (--)	-- (--)	-- (--)	46 (--)	20 (--)	510 (1)
Heterosexual	173 (2)	127 (2)	419 (46)	342 (44)	592 (6)	469 (6)	3,769 (4)
Blood transfusion	55 (1)	29 (--)	37 (4)	30 (4)	92 (1)	59 (1)	1,516 (2)
Other/undetermined	402 (5)	612 (9)	108 (12)	147 (19)	510 (5)	759 (10)	3,478 (3)
<b>Subtotal</b>	<b>8,640 (100)</b>	<b>6,829 (100)</b>	<b>903 (100)</b>	<b>786 (100)</b>	<b>9,543 (100)</b>	<b>7,615 (100)</b>	<b>100,833 (100)</b>
Pediatric (<13 years old) Exposure Category	Jul. 1995- Jun. 1996 No. (%)	Jul. 1996- Jun. 1997 No. (%)	Jul. 1995- Jun. 1996 No. (%)	Jul. 1996- Jun. 1997 No. (%)	Jul. 1995- Jun. 1996 No. (%)	Jul. 1996- Jun. 1997 No. (%)	Cumulative Total No. (%)
Coagulation Disorders	1 (5)	-- (--)	-- (--)	-- (--)	1 (3)	-- (--)	29 (5)
Blood transfusion	1 (5)	-- (--)	-- (--)	-- (--)	1 (3)	-- (--)	112 (21)
Mother at risk: --IDU	6 (32)	3 (20)	5 (29)	-- (--)	11 (31)	3 (12)	143 (26)
--Sex with IDU	4 (21)	1 (7)	3 (18)	2 (20)	7 (19)	3 (12)	73 (13)
--Sex w/bisexual male	-- (--)	1 (7)	2 (12)	1 (10)	2 (6)	2 (8)	26 (5)
--Sex w/HIV infected	2 (11)	2 (13)	2 (12)	5 (50)	4 (11)	7 (28)	63 (12)
--Blood transfusion	1 (5)	-- (--)	3 (18)	1 (10)	4 (11)	1 (4)	20 (4)
--HIV infected	4 (21)	7 (47)	2 (12)	1 (10)	6 (17)	8 (32)	74 (14)
Other/undetermined	-- (--)	1 (7)	-- (--)	-- (--)	-- (--)	1 (4)	6 (1)
<b>Subtotal</b>	<b>19 (100)</b>	<b>15 (100)</b>	<b>17 (100)</b>	<b>10 (100)</b>	<b>36 (100)</b>	<b>25 (100)</b>	<b>546 (100)</b>
<b>TOTAL</b>	<b>8,659</b>	<b>6,844</b>	<b>920</b>	<b>796</b>	<b>9,579</b>	<b>7,640</b>	<b>101,379</b>

Table 2. AIDS cases by age group, exposure category, and race/ethnicity reported through June 30, 1997 in California.

Adult/adolescent Exposure Category	White No. (%)	Black No. (%)	Hispanic No. (%)	Asian/ Pacific Is. No. (%)	Native American No. (%)	Not Specified No. (%)	TOTAL No. (%)
Homosexual/bisexual	50,623 (80)	8,380 (51)	12,378 (67)	1,490 (75)	239 (57)	124 (74)	73,234 (73)
IDU (heterosexual)	3,657 (6)	3,957 (24)	1,916 (10)	81 (4)	65 (16)	16 (10)	9,692 (10)
Homosexual/bisexual IDU	5,526 (9)	1,577 (10)	1,275 (7)	67 (3)	75 (18)	5 (3)	8,525 (8)
Lesbian/bisexual IDU	47 (--)	36 (--)	21 (--)	1 (--)	4 (1)	-- (--)	109 (--)
Coagulation Disorders	346 (1)	40 (--)	97 (1)	22 (1)	1 (--)	4 (2)	510 (1)
Heterosexual	1,409 (2)	1,177 (7)	1,049 (6)	115 (6)	16 (4)	3 (2)	3,769 (4)
Blood transfusion	890 (1)	168 (1)	346 (2)	106 (5)	2 (--)	4 (2)	1,516 (2)
Other/undetermined	1,019 (2)	969 (6)	1,360 (7)	104 (5)	14 (3)	12 (7)	3,478 (3)
<b>Subtotal</b>	63,517 (100)	16,304 (100)	18,442 (100)	1,986 (100)	416 (100)	168 (100)	100,833 (100)
Pediatric (<13 years old) Exposure Category	White No. (%)	Black No. (%)	Hispanic No. (%)	Asian/ Pacific Is. No. (%)	Native American No. (%)	Not Specified No. (%)	TOTAL No. (%)
Coagulation Disorders	15 (9)	1 (1)	11 (6)	2 (13)	-- (--)	-- (--)	29 (5)
Blood transfusion	41 (25)	24 (14)	40 (20)	7 (47)	-- (--)	-- (--)	112 (21)
Mother at risk: --IDU	51 (32)	67 (40)	21 (11)	-- (--)	4 (80)	-- (--)	143 (26)
--sex with IDU	17 (11)	18 (11)	36 (18)	1 (7)	1 (20)	-- (--)	73 (13)
--sex with bisexual male	8 (5)	4 (2)	13 (7)	1 (7)	-- (--)	-- (--)	26 (5)
--sex w/HIV infected	9 (6)	12 (7)	38 (19)	3 (20)	-- (--)	1 (100)	63 (12)
--blood transfusion	7 (4)	3 (2)	10 (5)	-- (--)	-- (--)	-- (--)	20 (4)
--HIV infected	12 (7)	37 (22)	24 (12)	1 (7)	-- (--)	-- (--)	74 (14)
Other/undetermined	1 (1)	1 (1)	4 (2)	-- (--)	-- (--)	-- (--)	6 (1)
<b>Subtotal</b>	161 (100)	167 (100)	197 (100)	15 (100)	5 (100)	1 (100)	546 (100)
<b>TOTAL</b>	<b>63,678</b>	<b>16,471</b>	<b>18,639</b>	<b>2,001</b>	<b>421</b>	<b>169</b>	<b>101,379</b>

**Table 3. Adult/adolescent AIDS cases by gender, exposure category, and race/ethnicity, reported through June 30, 1997 in California.**

Male Exposure Category	White No. (%)	Black No. (%)	Hispanic No. (%)	Asian/Pacific Is. No. (%)	Native American No. (%)	Not Specified No. (%)	TOTAL No. (%)
Homosexual/bisexual	50,623 (83)	8,380 (60)	12,378 (73)	1,490 (83)	239 (64)	124 (77)	73,234 (78)
IDU (heterosexual)	2,718 (4)	2,856 (20)	1,585 (9)	53 (3)	41 (11)	11 (7)	7,264 (8)
Homosexual/bisexual IDU	5,526 (9)	1,577 (11)	1,275 (7)	67 (4)	75 (20)	5 (3)	8,525 (9)
Coagulation Disorders	332 (1)	38 (--)	95 (1)	22 (1)	1 (--)	4 (2)	492 (1)
Heterosexual	370 (1)	347 (2)	317 (2)	24 (1)	5 (1)	3 (2)	1,066 (1)
Blood transfusion	570 (1)	82 (1)	162 (1)	59 (3)	1 (--)	3 (2)	877 (1)
Other/undetermined	850 (1)	741 (5)	1,189 (7)	83 (5)	9 (2)	12 (7)	2,884 (3)
<b>Subtotal</b>	<b>60,989 (100)</b>	<b>14,021 (100)</b>	<b>17,001 (100)</b>	<b>1,798 (100)</b>	<b>371 (100)</b>	<b>162 (100)</b>	<b>94,342 (100)</b>
Female Exposure Category	White No. (%)	Black No. (%)	Hispanic No. (%)	Asian/Pacific Is. No. (%)	Native American No. (%)	Not Specified No. (%)	TOTAL No. (%)
IDU	939 (37)	1,101 (48)	331 (23)	28 (15)	24 (53)	5 (83)	2,428 (37)
Lesbian/bisexual IDU	47 (2)	36 (2)	21 (1)	1 (1)	4 (9)	-- (--)	109 (2)
Coagulation Disorders	14 (1)	2 (--)	2 (--)	-- (--)	-- (--)	-- (--)	18 (--)
Heterosexual	1,039 (41)	830 (36)	732 (51)	91 (48)	11 (24)	-- (--)	2,703 (42)
Blood transfusion	320 (13)	86 (4)	184 (13)	47 (25)	1 (2)	1 (17)	639 (10)
Other/undetermined	169 (7)	228 (10)	171 (12)	21 (11)	5 (11)	-- (--)	594 (9)
<b>Subtotal</b>	<b>2,528 (100)</b>	<b>2,283 (100)</b>	<b>1,441 (100)</b>	<b>188 (100)</b>	<b>45 (100)</b>	<b>6 (100)</b>	<b>6,491 (100)</b>
<b>TOTAL</b>	<b>63,517</b>	<b>16,304</b>	<b>18,442</b>	<b>1,986</b>	<b>416</b>	<b>168</b>	<b>100,833</b>

**Table 4.** AIDS cases in adolescents and adults under age 25, by exposure category reported July 1, 1995 through June 30, 1996 and July 1, 1996 through June 30, 1997; and cumulative totals by age group through June 30, 1997 in California.

Exposure Category	13-19 years old			20-24 years old		
	Jul. 1995- Jun. 1996 No. (%)	Jul. 1996- Jun. 1997 No. (%)	Cumulative Total No. (%)	Jul. 1995- Jun. 1996 No. (%)	Jul. 1996- Jun. 1997 No. (%)	Cumulative Total No. (%)
Homosexual/bisexual	7 (28)	10 (38)	89 (32)	154 (58)	133 (61)	1,806 (62)
IDU (heterosexual)	-- (--)	-- (--)	8 (3)	22 (8)	20 (9)	277 (9)
Homosexual/bisexual IDU	-- (--)	-- (--)	10 (4)	18 (7)	10 (5)	345 (12)
Lesbian/bisexual IDU	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)	5 (--)
Coagulation Disorders	5 (20)	3 (12)	74 (26)	10 (4)	2 (1)	62 (2)
Heterosexual	9 (36)	2 (8)	39 (14)	34 (13)	21 (10)	253 (9)
Blood transfusion	1 (4)	6 (23)	41 (15)	1 (--)	1 (--)	36 (1)
Other/undetermined	3 (12)	5 (19)	19 (7)	25 (9)	31 (14)	150 (5)
<b>TOTAL</b>	<b>25 (100)</b>	<b>26 (100)</b>	<b>280 (100)</b>	<b>264 (100)</b>	<b>218 (100)</b>	<b>2,934 (100)</b>

Table 5. AIDS cases by gender, age at diagnosis, and race/ethnicity, reported through June 30, 1997 in California.

Male Age at Diagnosis-- Years	White No. (%)	Black No. (%)	Hispanic No. (%)	Asian/ Pacific Is. No. (%)	Native American No. (%)	Not Specified No. (%)	TOTAL No. (%)
0-4	47 (--)	62 (--)	68 (--)	4 (--)	2 (1)	-- (--)	183 (--)
5-12	37 (--)	27 (--)	35 (--)	4 (--)	-- (--)	-- (--)	103 (--)
13-19	73 (--)	30 (--)	97 (1)	8 (--)	2 (1)	-- (--)	210 (--)
20-24	1,206 (2)	422 (3)	840 (5)	54 (3)	13 (3)	6 (4)	2,541 (3)
25-29	6,758 (11)	1,851 (13)	3,166 (19)	233 (13)	72 (19)	27 (17)	12,107 (13)
30-34	13,507 (22)	3,226 (23)	4,346 (25)	400 (22)	104 (28)	31 (19)	21,614 (23)
35-39	13,981 (23)	3,241 (23)	3,543 (21)	394 (22)	90 (24)	38 (23)	21,287 (22)
40-44	10,827 (18)	2,378 (17)	2,340 (14)	335 (19)	45 (12)	27 (17)	15,952 (17)
45-49	6,798 (11)	1,383 (10)	1,224 (7)	190 (11)	21 (6)	13 (8)	9,629 (10)
50-54	3,776 (6)	751 (5)	676 (4)	79 (4)	10 (3)	8 (5)	5,300 (6)
55-59	2,080 (3)	389 (3)	405 (2)	55 (3)	9 (2)	8 (5)	2,946 (3)
60-64	1,118 (2)	206 (1)	207 (1)	23 (1)	3 (1)	1 (1)	1,558 (2)
65 or older	865 (1)	144 (1)	157 (1)	27 (1)	2 (1)	3 (2)	1,198 (1)
Subtotal	61,073 (100)	14,110 (100)	17,104 (100)	1,806 (100)	373 (100)	162 (100)	94,628 (100)
Female Age at Diagnosis-- Years	White No. (%)	Black No. (%)	Hispanic No. (%)	Asian/ Pacific Is. No. (%)	Native American No. (%)	Not Specified No. (%)	TOTAL No. (%)
0-4	51 (2)	63 (3)	76 (5)	4 (2)	3 (6)	1 (14)	198 (3)
5-12	26 (1)	15 (1)	18 (1)	3 (2)	-- (--)	-- (--)	62 (1)
13-19	22 (1)	22 (1)	23 (1)	3 (2)	-- (--)	-- (--)	70 (1)
20-24	134 (5)	117 (5)	132 (9)	7 (4)	3 (6)	-- (--)	393 (6)
25-29	381 (15)	313 (13)	278 (18)	23 (12)	8 (17)	-- (--)	1,003 (15)
30-34	553 (21)	472 (20)	300 (20)	27 (14)	12 (25)	2 (29)	1,366 (20)
35-39	453 (17)	517 (22)	258 (17)	43 (22)	8 (17)	1 (14)	1,280 (19)
40-44	351 (13)	383 (16)	181 (12)	21 (11)	5 (10)	1 (14)	942 (14)
45-49	230 (9)	233 (10)	99 (6)	25 (13)	3 (6)	1 (14)	591 (9)
50-54	113 (4)	90 (4)	64 (4)	12 (6)	4 (8)	-- (--)	283 (4)
55-59	67 (3)	71 (3)	51 (3)	10 (5)	1 (2)	-- (--)	200 (3)
60-64	66 (3)	32 (1)	28 (2)	6 (3)	-- (--)	-- (--)	132 (2)
65 or older	158 (6)	33 (1)	27 (2)	11 (6)	1 (2)	1 (14)	231 (3)
Subtotal	2,605 (100)	2,361 (100)	1,535 (100)	195 (100)	48 (100)	7 (100)	6,751 (100)
TOTAL	63,678	16,471	18,639	2,001	421	169	101,379

Table 6. AIDS cases, deaths, and case-fatality rates by half-year of diagnosis through June 30, 1997 in California.

Half-Year of Diagnosis	Number of Cases	Number of Deaths	Case Fatality Rate
Before 1983	300	287	96%
1983 Jan-June	297	287	97%
July-Dec	410	393	96%
1984 Jan-June	587	568	97%
July-Dec	815	784	96%
1985 Jan-June	1,158	1,118	97%
July-Dec	1,422	1,365	96%
1986 Jan-June	1,830	1,766	97%
July-Dec	2,228	2,127	95%
1987 Jan-June	2,745	2,620	95%
July-Dec	2,881	2,705	94%
1988 Jan-June	3,252	3,034	93%
July-Dec	3,353	3,061	91%
1989 Jan-June	3,943	3,521	89%
July-Dec	3,876	3,423	88%
1990 Jan-June	4,465	3,827	86%
July-Dec	4,405	3,729	85%
1991 Jan-June	5,245	4,251	81%
July-Dec	6,068	4,698	77%
1992 Jan-June	6,468	4,568	71%
July-Dec	6,359	4,141	65%
1993 Jan-June	6,436	3,666	57%
July-Dec	5,623	2,696	48%
1994 Jan-June	5,491	2,198	40%
July-Dec	4,741	1,491	31%
1995 Jan-June	4,904	1,140	23%
July-Dec	4,091	722	18%
1996 Jan-June	3,781	485	13%
July-Dec	2,679	251	9%
1997 Jan-June	1,526	74	5%
<b>TOTAL</b>	<b>101,379</b>	<b>64,996</b>	<b>64%</b>

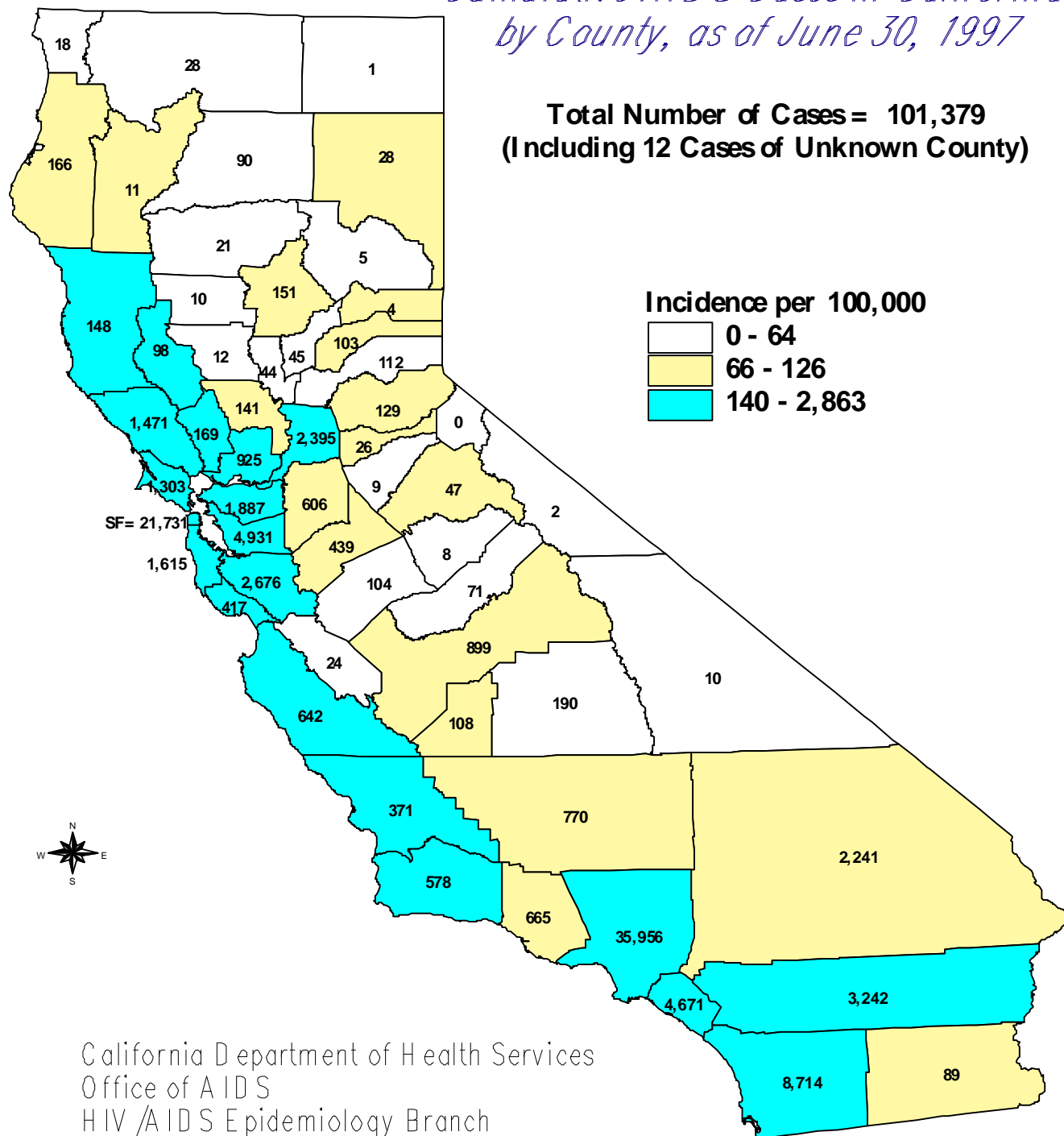
Table 7. AIDS Cases and Cumulative Incidence 1981 through June 30, 1997 in California.

County	AIDS Cases	Deaths	Case Fatality Rate (%)	Incidence Per 100,000	County	AIDS Cases	Deaths	Case Fatality Rate (%)	Incidence Per 100,000
Alameda	4,931	3,185	64.6%	353.96	Orange	4,671	2,678	57.3%	172.19
Berkeley	462	310	67.1%	440.42	Placer	112	61	54.5%	51.27
Alpine	--	--	--	--	Plumas	5	3	60.0%	22.91
Amador	26	17	65.4%	78.29	Riverside	3,242	1,785	55.1%	208.96
Butte	151	104	68.9%	74.08	Sacramento	2,395	1,586	66.2%	196.95
Calaveras	9	5	55.6%	20.56	San Benito	24	10	41.7%	54.12
Colusa	12	11	91.7%	62.38	San Bernardino	2,241	1,311	58.5%	125.94
Contra Costa	1,887	1,235	65.4%	207.46	San Diego	8,714	5,274	60.5%	319.66
Del Norte	18	10	55.6%	58.33	San Francisco	21,731	15,092	69.4%	2,863.20
El Dorado	129	86	66.7%	81.93	San Joaquin	606	388	64.0%	107.92
Fresno	899	569	63.3%	108.63	San Luis Obispo	371	180	48.5%	160.42
Glenn	10	6	60.0%	35.08	San Mateo	1,615	1,037	64.2%	227.14
Humboldt	166	97	58.4%	126.12	Santa Barbara	578	411	71.1%	145.25
Imperial	89	44	49.4%	66.43	Santa Clara	2,676	1,616	60.4%	164.19
Inyo	10	7	70.0%	51.26	Santa Cruz	417	256	61.4%	173.06
Kern	770	361	46.9%	113.29	Shasta	90	73	81.1%	50.63
Kings	108	53	49.1%	95.61	Sierra	4	4	100.0%	119.40
Lake	98	55	56.1%	159.61	Siskiyou	28	16	57.1%	59.62
Lassen	28	11	39.3%	104.26	Solano	925	534	57.7%	222.73
Los Angeles	35,956	23,431	65.2%	373.12	Sonoma	1,471	918	62.4%	334.24
Long Beach	3,094	2,000	64.6%	706.72	Stanislaus	439	262	59.7%	96.94
Pasadena	547	366	66.9%	406.99	Sutter	44	26	59.1%	55.40
Madera	71	41	57.7%	62.97	Tehama	21	11	52.4%	35.65
Marin	1,303	699	53.6%	539.84	Trinity	11	8	72.7%	77.64
Mariposa	8	3	37.5%	44.95	Tulare	190	132	69.5%	50.12
Mendocino	148	106	71.6%	163.10	Tuolumne	47	29	61.7%	83.87
Merced	104	67	64.4%	48.50	Ventura	665	431	64.8%	90.29
Modoc	1	1	100.0%	9.23	Yolo	141	86	61.0%	88.83
Mono	2	1	50.0%	18.48	Yuba	45	28	62.2%	64.49
Monterey	642	382	59.5%	168.74	Unknown	12	6	50.0%	
Napa	169	104	61.5%	140.18					
Nevada	103	53	51.5%	106.95					
					TOTAL	101,379	64,996	64.1%	301.38



*Cumulative AIDS Cases in California  
by County, as of June 30, 1997*

**Total Number of Cases = 101,379  
(Including 12 Cases of Unknown County)**



**MEETINGS/ANNOUNCEMENTS**

**September 25-27, 1997** 4th Western Regional HIV, AIDS & Women Conference, La Jolla Marriott, San Diego, CA. Sponsored by the University of California, San Diego School of Medicine. For more information, contact the Office of Continuing Medical Education, 619-534-3940 (phone) or 619-534-7672 (fax).

**November 9-12, 1997** National AIDS Treatment Advocates Forum, The Handlery Hotel, San Diego, CA. Sponsored by the National Minority AIDS Council (NMAC). For more information, contact the NMAC, 1931 13th St. NW, Washington, D.C. 20009, 202-483-6622.

**March 24-27, 1998** Tenth Annual National AIDS Update Conference, Bill Graham Civic Auditorium, San Francisco, CA. Currently soliciting abstracts for workshop and poster presentations. For more information, contact Cliff Morrison, Program Director, 415-206-1644 (phone), 415-206-0796 (fax), or [aidsconf@aol.com](mailto:aidsconf@aol.com) (email).

**June 28 - July 3, 1998** 12th World AIDS Conference, Geneva, Switzerland. Sponsored by the International AIDS Society. For more information contact C/o Congrex(Sweden)AB, P. O. Box 5619, S-114 86 Stockholm, Sweden, +46 8 612 69 00 (phone) +46 8 612 62 92 (fax), [aids98@congrex.se](mailto:aids98@congrex.se) (email) or <http://www.aids98.ch> (Internet).

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